ABSTRACT

Disclosed is a turbo decoding apparatus and method for a communication system. A high-rate memory buffer operating at the same frequency as a turbo decoder is arranged between a memory buffer of a receiver and the turbo decoder. The decoding apparatus reads data bits stored in the memory buffer of the receiver via the high-rate memory buffer, delays the read data bits for a time required in the turbo decoder, and then applies the delayed data bits to a Soft-In Soft-Out (SISO) decoder of the turbo decoder. The memory buffer of the receiver outputs data bits at an operating frequency or clock of the turbo decoder.